

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The non-final Office Action dated March 15, 2011 has been received and its contents carefully reviewed.

Claims 10-11, 14, and 19 are hereby amended. Claims 17-18, 21, and 29 were previously canceled and claims 30 and 31 are presently sought to be canceled herein without prejudice to or disclaimer of the subject matter contained therein. Accordingly, claims 1-16, 19-20, and 22-28, are currently pending with claims 1, 10, and 23 being the independent claims, of these claims 1-9 and 23-28 are withdrawn from consideration. Reexamination and reconsideration of the pending claims are respectfully requested.

Claim Objections

The Office Action, page 2, objects to claims 10, 14, and 30 because they allegedly contain informalities. Claim 30 has been canceled herein rendering the rejection thereto moot. As to the remaining claims, Applicants have amended these claims such that the informalities have been addressed. Accordingly, Applicants believe the objection has been overcome and respectfully request withdrawal of the objection.

Rejection under 35 U.S.C. § 112

Claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.. *Office Action* p. 3. Applicants respectfully traverse this rejection.

Claim 11 has been amended to address the alleged insufficient antecedent basis. This claim amendment should eliminate the alleged indefiniteness described in paragraph 10 of the Office Action. Accordingly, Applicants believe the rejection now moot and respectfully request withdrawal of the 35 U.S.C. § 112, second paragraph, rejection of claim 11.

Rejections under 35 U.S.C. § 103

Claims 10-11, 13-16, 19, 22, 30, and 31 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Published Patent Application No. 2005/0132503 to

Yang et al. (hereinafter “Yang”). *Office Action* p. 4. Claims 30 and 31 have been canceled herein rendering the rejection thereto moot. As to the remaining claims, Applicants respectfully traverse this rejection.

Amended independent claim 10 recites, [a] method for operating a laundry device comprising:

generating steam from water;
supplying the steam to an inside of a drum where the laundry is introduced for washing laundry, wherein ***the steam is supplied to soak the laundry and contaminants of the laundry without supplying washing water in a liquid form;***
stopping the steam supply after a predetermined period of time;
and
rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants soaked with the steam from the laundry ***after the stopping steam supply.***

(emphasis added)

Applicants respectfully submit that Yang does not disclose, teach, or suggest each and every element of claim 10. Specifically, Applicants submit that the cited reference does not teach at least “***rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants*** soaked with the steam from the laundry ***after the stopping steam supply***[.]” as recited in claim 10.

The Office Action states that Yang remains silent as to the drum being rotated at a speed higher than 2000 RPM. The Office Action continues by stating that one skilled in the art would have found it obvious to optimize the rotation speed of the drum through routine experimentation for optimum cleaning results. Applicants disagree. In the claimed invention, the laundry is soaked with steam ***without supplying washing water in the liquid form.*** Therefore, in the claimed invention it is possible to rotate the drum at a high speed more than 2000 RPM. However, in general washing with washing water in a liquid form, such as the washing in Yang, it is very difficult to rotate drum at a high speed more than 2000 RPM since doing so will cause a significant vibration. Since Yang basically discloses washing using washing water in a liquid form, Yang teaches away from the claimed invention. Applicants submit that Yang does not disclose the drum being rotated at a speed higher than 2000 RPM because nothing taught in Yang inherently contemplates rotations of a speed 2000 RPM or higher. Applicants further submit that this feature is not a mere optimization routine that can be determined by a person of ordinary skill in the art through routine experimentation. Even if Applicants were to assume,

arguendo, the Examiner's contention that a person of ordinary skill in the art would find it obvious in view of Yang to rotate the drum at a high speed more than 2000 RPM, Applicants submit that there is no disclosure, teaching, or suggesting in Yang of doing so "***after the stopping steam supply[,]***" for the purpose of "***separat[ing] centrifugally the contaminants soaked with the steam from the laundry[,]***" as recited in claim 10. The "high speed" rotation of the tub in Yang keeps the laundry in contact with the inner peripheral surface of the rotating tub during, not after, the steam supplying.

Further, in general, a drum of a washing machine rotates at about 40-60 RPM for tumbling. Also, the drum is rotated at about 90-100 RPM for spinning. Spinning means that the laundry in the drum is rotated with the drum and attached inside the drum. However, the RPM at the spinning is lower than the RPM at dehydrating. The dehydrating RPM is generally 400-1500 RPM.

According to Yang, steam is supplied into the drum when the drum rotates at a spinning RPM in order to supply steam evenly to laundry. Therefore, the centrifugal force to separate the soaked contaminants are not intended. In contrast, according to the claimed invention, the drum rotates "***at a high speed more than 2000 RPM to separate centrifugally the contaminants soaked with the steam from the laundry after the stopping steam supply.***" In other words, the drum rotates at a speed higher than a general dehydrating RPM, typically 400-1500 RPM, after soaking the contaminants with the steam.

Therefore, Applicants respectfully submit that the Yang does not disclose, teach, or suggest at least "***rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants soaked with the steam from the laundry after the stopping steam supply[,]***" as recited in claim 10. For at least this reason, Yang does not disclose, teach, or suggest all the features as recited in claim 10. Thus, independent claim 10 is not *prima facie* obvious and is patentable over the cited reference. Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection of claim 10. Claims 11, 13-16, 19, and 22 depend, directly or indirectly from, and add further features to independent claim 10. It stands to reason that the 35 U.S.C. § 103(a) rejection of these dependent claims should be withdrawn as well.

Claim 12 is rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Yang as applied to claim 10 above and further in view of U.S. Published Patent Application

No. 2004/0187527 to Kim et al. (hereinafter “Kim”). *Office Action* p. 8. Applicants respectfully traverse this rejection.

Claim 12 depends from and adds further features to independent claim 10. As discussed above, Yang does not disclose or suggest at “*rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants* soaked with the steam from the laundry *after the stopping steam supply[,]*” as recited in independent claim 10. Kim, added in the Office Action, to allegedly teach supplying steam into a laundry device to soak the laundry, does not cure the deficiencies of Yang. That is Kim also does not disclose, teach, or suggest “*rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants* soaked with the steam from the laundry *after the stopping steam supply[,]*” as recited in independent claim 10. For at least these reasons, claim 12, which depends from and adds further features to independent claim 10, is not *prima facie* obvious and is patentable over the cited reference. Accordingly, Applicants respectfully request reconsideration and withdrawal of this 35 U.S.C. § 103(a) rejection of claim 12.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Yang in view of U.S. Published Patent Application No. 2001/0049847 to Yarmosky (hereinafter “Yarmosky”). *Office Action* p. 9. Applicants respectfully traverse this rejection.

Claim 20 depends from and adds further features to independent claim 10. As discussed above, Yang does not disclose or suggest at “*rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants* soaked with the steam from the laundry *after the stopping steam supply[,]*” as recited in independent claim 10. Yarmosky, added in the Office Action, to allegedly teach supplying concentrated fluid detergent, does not cure the deficiencies of Yang. That is Yarmosky also does not disclose, teach, or suggest “*rotating the drum at a high speed more than 2000 RPM to separate centrifugally the contaminants* soaked with the steam from the laundry *after the stopping steam supply[,]*” as recited in independent claim 10. For at least these reasons, claim 20, which depends from and adds further features to independent claim 10, is not *prima facie* obvious and is patentable over the cited reference. Accordingly, Applicants respectfully request reconsideration and withdrawal of this 35 U.S.C. § 103(a) rejection of claim 20.

CONCLUSION

The application is in condition for allowance. Early and favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to Deposit Account No. 50-0911.

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Respectfully submitted,

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